eco-lution

High Performance Air Conditioning

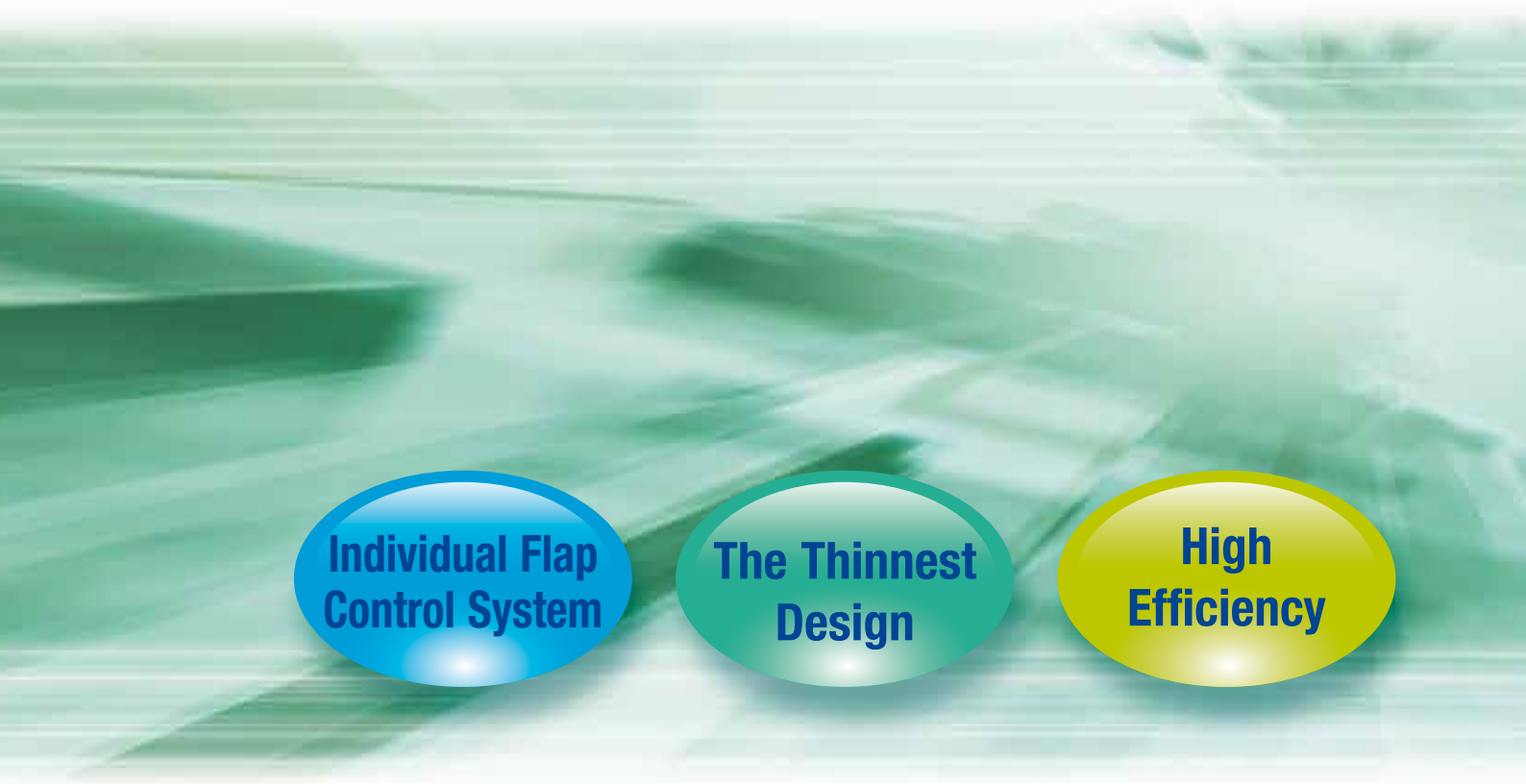
FD series

Inverter Packaged Air Conditioners

MITSUBISHI HEAVY INDUSTRIES, LTD.

Individual flap control system

According to room temperature conditions, four directions of air flow can be controlled by individual flap as preferred.
Individual flap control is available even after installation.



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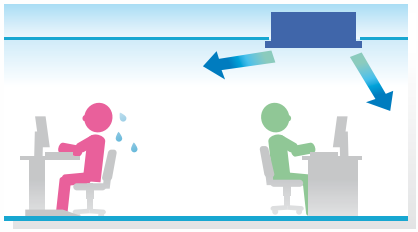
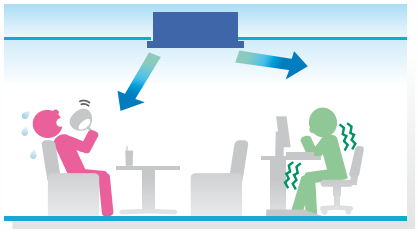
MITSUBISHI HEAVY INDUSTRIES, LTD.

Ceiling Cassette -4way-
Indoor units

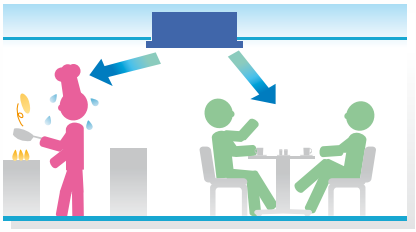
FDT



For the person who is far away from the indoor unit



For when one person feels hot and the other cold



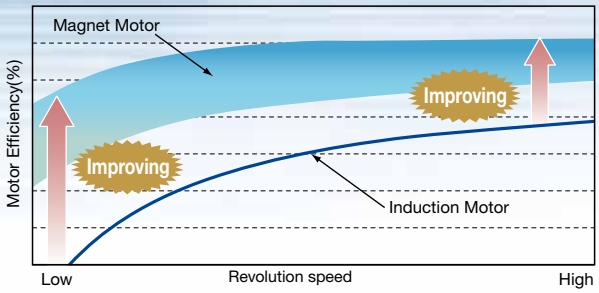
Can cool both the kitchen and the guests

QUICK CONTROL & HIGH EFFICIENCY

DC PAM inverter

An inverter system has a number of advantages over a constant speed system. It's variable speed compressor outputs can ensure quick cooling or heating after start up and attains a set temperature more quickly. The air conditioner can slow down the compressor speed to save energy whilst keeping comfortable conditions. The compressor is DC motor driven so it provides higher performance.

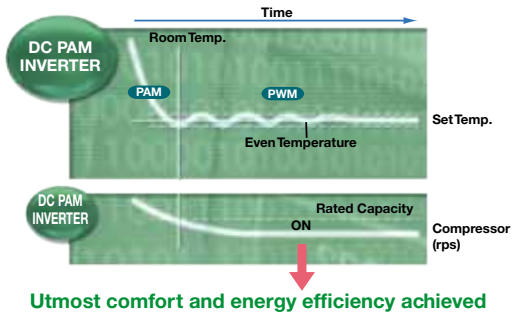
DC compressor motor



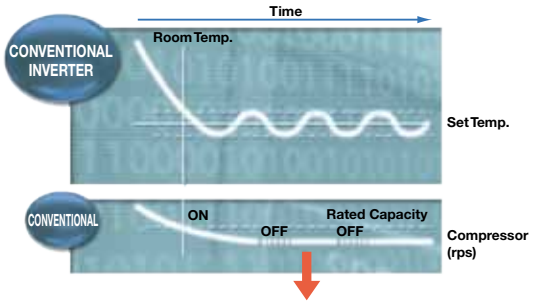
New Inverter Control (Vector control)

New Inverter Control has applied the new advanced technology of Vector control enabling:-

- Smooth operation from low to high speed
- Smooth Sine Voltage Wave form is achieved
- Energy efficiency has improved in low speed range



Utmost comfort and energy efficiency achieved with large output power and control optimisation

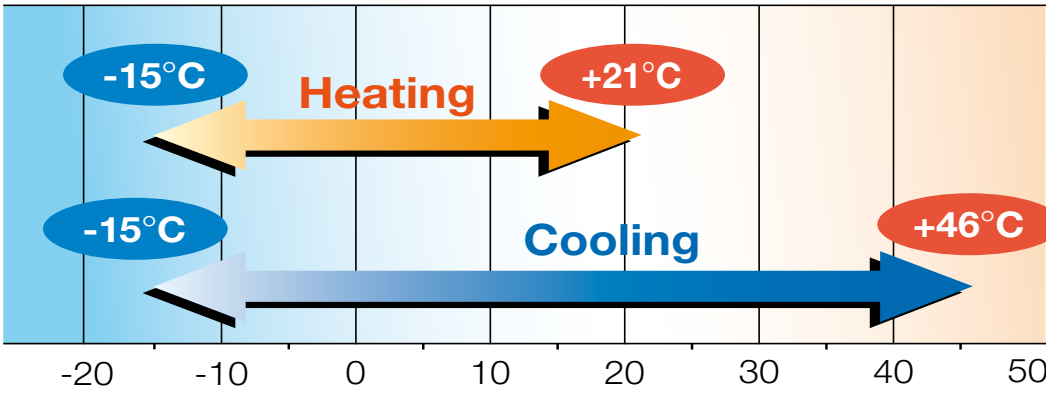


Less advanced technology does not address the ON/OFF cycle issue.

Wide Operation Range

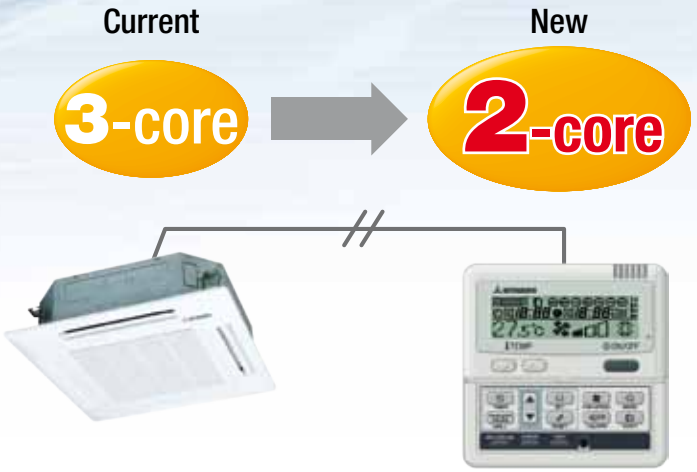
Heating and cooling operations are possible at an outdoor temperature as low as –15°C.

Our new advanced technology has improved the heating and cooling operation range.
Units can be installed when heating or cooling operation is required at low ambient conditions down to -15°C.



New remote control RC-E3

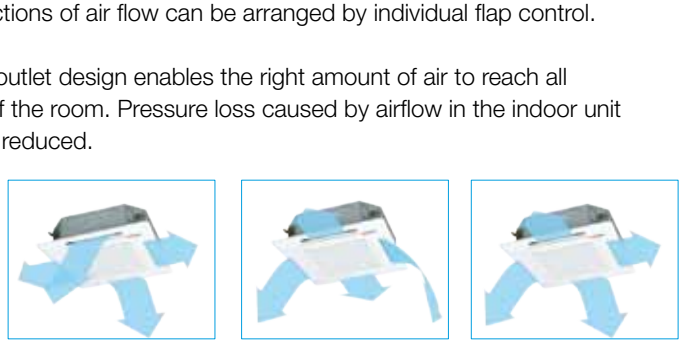
New remote control for all indoor units
Non-polar 2 core wiring now used. Installation is easier.



Individual flap control system

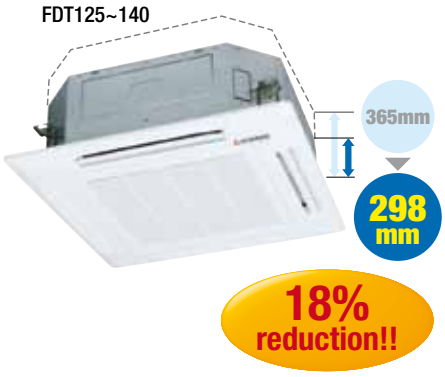
Four directions of air flow can be arranged by individual flap control.

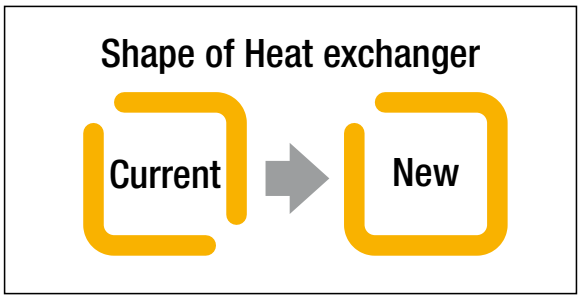
Our new outlet design enables the right amount of air to reach all corners of the room. Pressure loss caused by airflow in the indoor unit has been reduced.



The thinnest design

The heat exchanger has been re-designed and energy efficient DC fan motors have been used to enable us to reduce the height of the indoor unit. Heat exchanger piping modification and design increases heat transfer efficiency.



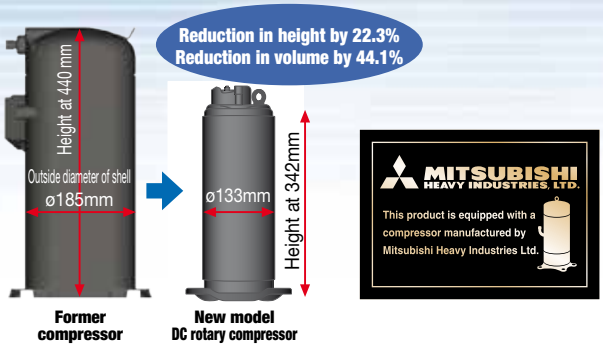


High performance and energy efficiency are achieved at the same time by an increase in the heat exchanger capacity and by using DC fan motors.

Compact design

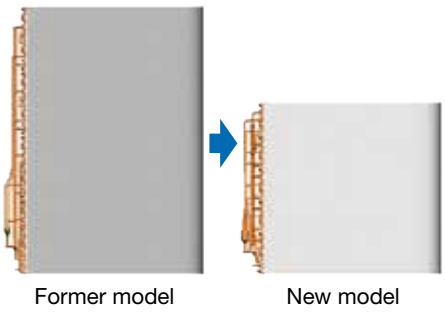
Size reduction and high efficiency performance of the DC twin rotary compressor

The DC twin rotary compressor can operate at speeds as high as 120 rps to achieve the required capacity. Vector control and has provided the optimum compressor control. Starting current has improved significantly and vibration has been reduced.


Reduction in height by 22.3%
Reduction in volume by 44.1%
Height at 440 mm
Outside diameter of shell
ø185mm
ø133mm
Height at 342mm
Former compressor
New model DC rotary compressor
MITSUBISHI HEAVY INDUSTRIES, LTD.
This product is equipped with a compressor manufactured by Mitsubishi Heavy Industries Ltd.

Improved efficiency of heat exchanger

Re-designing the fins to a straight shape has reduced the pressure loss of the air flow in the heat exchanger. A new surface treatment on the fins has enhanced the frost resistance capacity compared to former models. A high speed fan motor has increased the airflow which allows cooling capacity to be maintained even at high outdoor air temperatures.

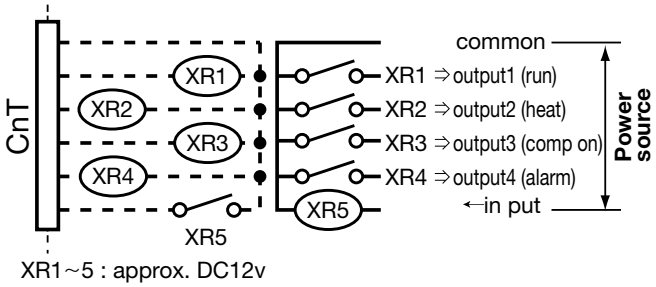


DC fan motor

The outdoor fan motor has improved efficiency by 60% compared to former models.

CnT terminal

A dry contact is fitted to each indoor unit which is used when a signal output is required.



New outdoor units SRC50/60ZIX-S

SRC50/60ZIX-S is common for both outdoor units of SRK50/60ZIX-S wall split systems, and 5.0 & 5.6kW of Inverter Packaged Air-Conditioners. The installation procedure is the same.

R410A RoHS

	Model	Capacity Range (kW : Rated cooling capacity)						
		4.0	5.0	6.0	7.1	10.0	12.5	14.0
HEAT PUMP DC INVERTER	FDT Caseette			●	●	●	●	●
	FDTC Mini Cassette	●	●					
	FDU Ducted				●	●	●	●
	FDUM Ducted		●	●				
	FDEN Under Ceiling			●		●		

FDT Ceiling Cassette - 4way

FDT 60/71/100/125/140V

Wireless remote control

RCN-T-36W-E
(Option)

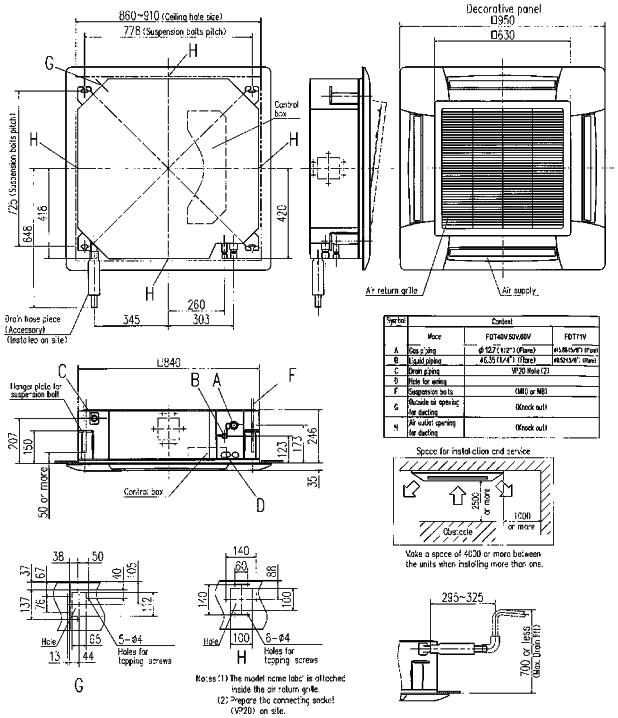
Wired remote control

RC-E3
(Option)

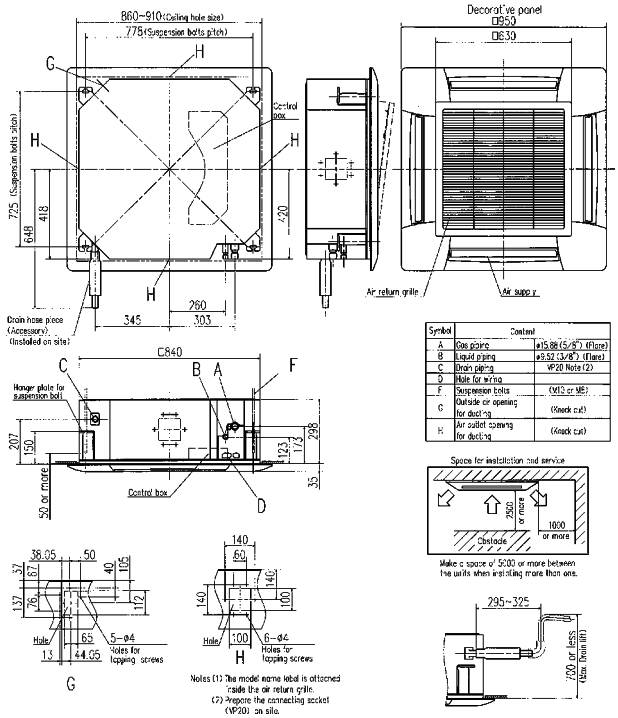
RCH-E3
(Option)

Outline drawing (Unit:mm)

Model FDT 60,71V


860~910 (Ceiling hole size)
778 (Suspension bolts pitch)
Decorative panel
Control box
Air return grille
Air supply
Drain hose piece (Accessory) (Installed on site)
Hanger plate for suspension bolt
Control box
Space for installation and service
Obstacle
Make a space of 4030 or more between the units when installing more than one.
Holes for tapping screws
Holes for tapping screws
Notes (1) The model name label is attached inside the air return grille.
(2) Prepare the connecting socket (VP20) on site.

Model FDT 100,125,140V


860~910 (Ceiling hole size)
775 (Suspension bolts pitch)
Decorative panel
Control box
Air return grille
Air supply
Drain hose piece (Accessory) (Installed on site)
Hanger plate for suspension bolt
Control box
Space for installation and service
Obstacle
Make a space of 5000 or more between the units when installing more than one.
Holes for tapping screws
Holes for tapping screws
Notes (1) The model name label is attached inside the air return grille.
(2) Prepare the connecting socket (VP20) on site.

Installation

Detachable covers at each corner allows for easy alignment and balance. The panel does not need to be removed. Installation time is reduced.

Infrared control

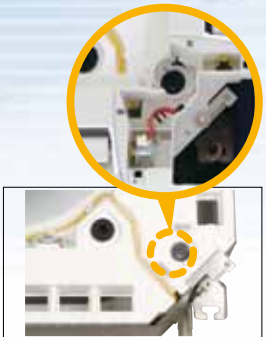
For wireless control simply insert the infra-red receiver kit on the corner.

wireless remote control

RCN-T-36W-E

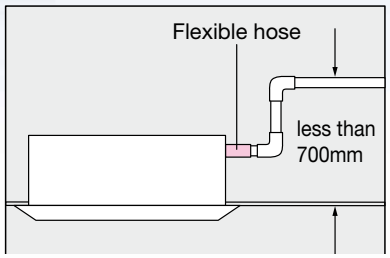
Easy checking of drain pan

To check the drain pan simply remove the corner lid.



700mm Drain Pump

The drain pump can discharge up to 700mm from the ceiling surface.



	Model		FDT60ZIXV	FDT71VNV	FDT100VNV	FDT125VNV	FDT140VNV
operational data	Rated Capacity Cool/Heat	kW	5.6/6.7	7.1/8.0	10.0/11.2	12.5/14.0	14.0/16.0
	Power Input Cool/Heat	kW/h	1.57/1.85	1.90/2.07	2.76/2.74	4.05/3.77	4.98/4.57
	EER/COP Cool/Heat		3.57/3.62	3.74/3.86	3.62/4.09	3.09/3.71	2.81/3.50
	Current Cool/Heat (MAX)	Amp	5 (14)	5 (17)	5 (24)		
	Sound Pressure Level Hi/Lo Fan	dB(A)	33/30	35/31	40/35	42/37	43/38
	Airflow Cool Hi/Lo Fan	l/s	300/233	350/283	450/333	500/383	500/383
indoor	Dimensions unit (hxwxd) / Panel	mm	246x840x840/950 ☐		298x840x840/950 ☐		
	Weight Unit + Panel	kg	24+5.5		27+5.5		
	Remote		Wired RC-E3, RCH-E3 Wireless RCN-T-36W-E				
outdoor	Power Source		1 Phase 220-240V 50Hz				
	Dimensions (hxwxd)	mm	640x800(71)x290	750x880x(88)x340	845x970x370		
	Weight	kg	45	60	74		
	Sound Pressure Level	dB(A)	48		49	50	51
	Sound Power Level (AS/NZS1217.4)	dB(A)	62		63	64	65
	Compressor		Scroll	Rotary			
	Refrigerant R410A	kg	1.4	2.95	3.8		
	Refrigerant Piping	mm ø	6.35/12.7	9.52/15.88			

■ Cassette - 4way Compact (600x600mm)

FDTC

FDTC 40/50V

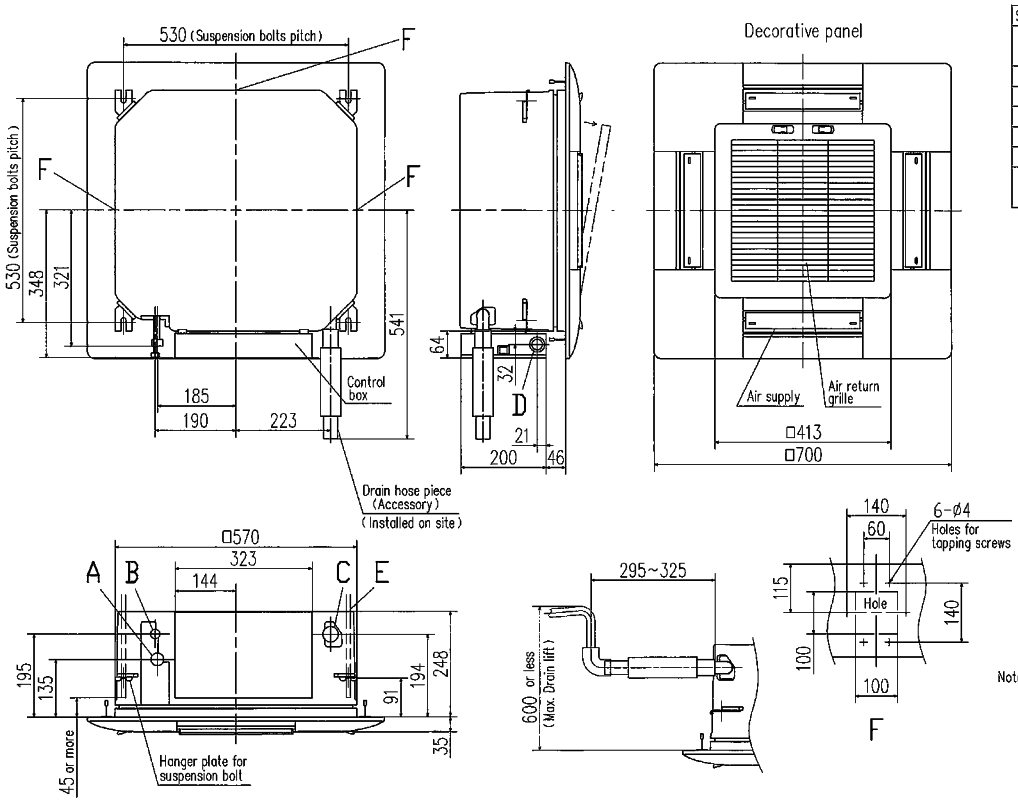
Wireless remote control

RCN-TC-24W-ER
(Option)

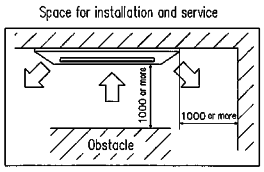
Wired remote control

RC-E3
(Option)

■ Outline drawing (Unit:mm)



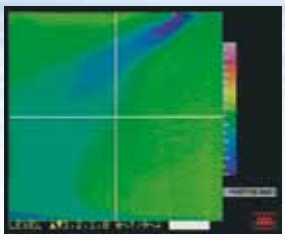
Symbol	Content	
	Model	FDTC40V , 50V
A	Gas piping	ø12.7 (1/2") (Flare)
B	Liquid piping	ø6.35 (1/4") (Flare)
C	Drain piping	VP20 Note (2)
D	Hole for wiring	ø25
E	Suspension bolts	(M10 or M8)
F	Air outlet opening for ducting	(Knock out)

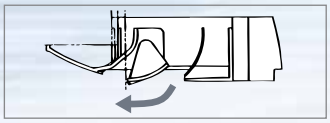


Make a space of 4000 or more between the units when installing more than one.

Notes (1) The model name label is attached on the control box lid inside the air return grille.
(2) Prepare the connecting socket (VP20) on site.
(3) This unit is designed for 2x2 grid ceiling.
If it is installed on a ceiling other than 2x2 grid ceiling, provide an inspection port on the control box side.

Clearer airflow





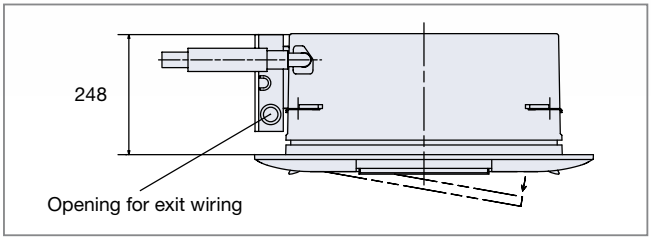
The new shape and angle of the louver directs the air current away from the ceiling reducing ceiling stains.

Infrared control

For wireless control simply insert the infra-red receiver kit on the corner.

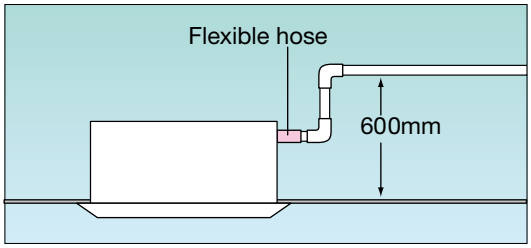
Compact design

Height dimension is only 248mm
Panel size is only 700x700mm.
The indoor unit is 570x570mm ideal for suspended ceilings.



Installation

Wired or infra-red wireless remote control option.
Light weight only18.5kg
600mm Drain Pump
The drain pump can discharge up to 600mm from the ceiling surface.



	Model		FDTC40VHX-S	FDTC50VHX-S
operational data	Rated Capacity Cool/Heat	kW	4.0/4.5	5.0/5.4
	Power Input Cool/Heat	kW/h	1.04/1.10	1.56/1.45
	EER/COP Cool/Heat		3.85/4.09	3.21/3.72
	Current Cool/Heat (MAX)	Amp	5 (12)	5 (14)
	Sound Pressure Level Hi/Lo Fan	dB(A)	42/35	
	Airflow Cool Hi/Lo Fan	l/s	192/133	
indoor	Dimensions unit (hxwxd) / Panel	mm	248x570x570/700 □	
	Weight Unit + Panel	kg	15+3.5	
	Remote		Wired RC-E3, RCH-E3 Wireless RCN-TC-24W-ER	
outdoor	Power Source		1 Phase 220-240V 50Hz	
	Dimensions (hxwxd)	mm	640x800(71)x290	
	Weight	kg	43	
	Sound Pressure Level	dB(A)	48	
	Sound Power Level (AS/NZS1217.4)	dB(A)	62	
	Compressor		Scroll	
	Refrigerant R410A	kg	1.4	
	Refrigerant Piping	mm ø	6.35/12.7	

■ Ducted - Medium Static Pressure

FDU

RCH-E3
(Option)

Wired remote control

RC-E3
(Option)

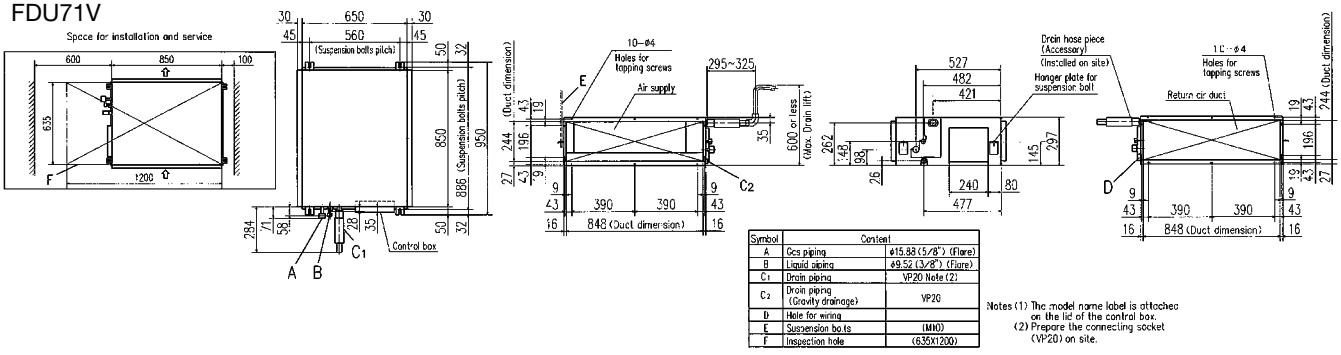
RCN-KIT3-E

FDU71/100/125/140V

Return air option

■ Outline drawing (Unit:mm)

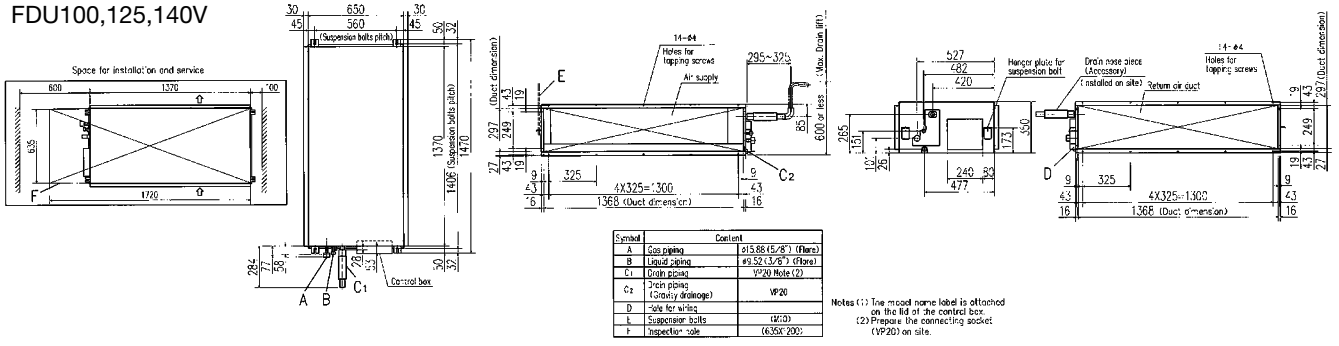
FDU71V



Symbol	Content	
A	Gas piping	φ15.88 (5/8") (Flare)
B	Liquid piping	φ9.52 (3/8") (Flare)
C1	Drain piping	VP20 Note (2)
C2	Drain piping (Gravity drainage)	VP20
D	Hole for wiring	
E	Suspension bolts	(M10)
F	Inspection hole	(635X1200)

Notes (1) The model name label is attached on the lid of the control box.
(2) Prepare the connecting socket (VP20) on site.

FDU100,125,140V



Symbol	Content	
A	Gas piping	φ15.88 (5/8") (Flare)
B	Liquid piping	φ9.52 (3/8") (Flare)
C1	Drain piping	VP20 Note (2)
C2	Drain piping (Gravity drainage)	VP20
D	Hole for wiring	
E	Suspension bolts	(M10)
F	Inspection hole	(635X1200)

Notes (1) The model name label is attached on the lid of the control box.
(2) Prepare the connecting socket (VP20) on site.

Quiet, Lightweight and Compact

The FDU71 noise level is only 37dB on low fan. Weight is only 40kg and height 297mm. In addition a 600mm drain pump is mounted in all models. The indoor unit is concealed in the ceiling making it the ideal choice for homes and commercial premises.

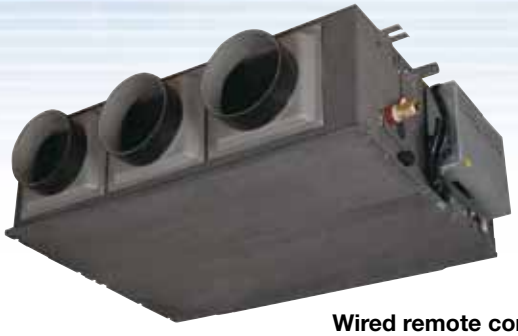
Height 297mm

	Model		FDU71VNV	FDU100VNV	FDU125VNV	FDU140VNV
operational data	Rated Capacity Cool/Heat	kW	7.1/8.0	10.0/11.2	12.5/14.0	14.0/16.0
	Power Input Cool/Heat	kW/h	2.08/2.21	2.88/2.99	4.04/3.79	4.95/4.43
	EER/COP Cool/Heat		3.41/3.62	3.47/3.75	3.09/3.69	2.83/3.61
	Current Cool/Heat (MAX)	Amp	5 (17)	5 (25)	5 (27)	5 (28)
	Sound Pressure Level Hi/Lo Fan	dB(A)	41/37	42/37	43/38	
	Airflow Cool Hi/Lo Fan	l/s	417/333	566/450	700/558	
	Static Pressure	Pa	standard 50 MAX 130			
indoor	Dimensions (hxwxd)	mm	297x850x650	350x1370x650		
	Dimensions (hxw) Return & Supply Air	mm	244x848	297x1368		
	Weight	kg	40	63		
	Remote		Wired RC-E3, RCH-E3 Wireless RCN-KIT3-E			
outdoor	Power Source		1 Phase 220-240V 50Hz			
	Dimensions (hxwxd)	mm	750x880x(88)x340	845x970x370		
	Weight	kg	60	74		
	Sound Pressure Level	dB(A)	48	49	50	51
	Sound Power Level (AS/NZS1217.4)	dB(A)	62	63	64	65
	Compressor		Rotary			
	Refrigerant R410A	kg	2.95	3.8		
	Refrigerant Piping	mm ø	9.52/15.88			

Ducted - Medium Static Pressure

FDUM

R410A



Wired remote control

RCN-KIT3-E

RC-E3
(Option)

RCH-E3
(Option)

Point 1 Adaptable

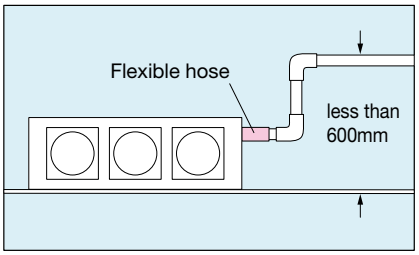
Selectable static pressure and Flexible duct design with selectable air suction (direct suction /duct suction) can meet a wide range of installations.

Static pressure Pa

model	Standard	Max
50/60V	50	85

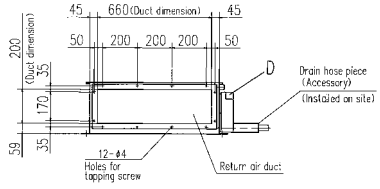
Point 2 600mm Drain Pump

Drain can be discharged upwards by 600mm from the ceiling surface. It allows a piping layout with a high degree of freedom depending on the installation location.

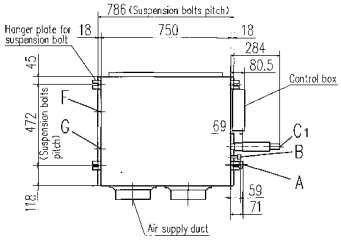


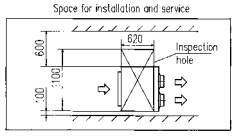
Outline drawing(Unit:mm)

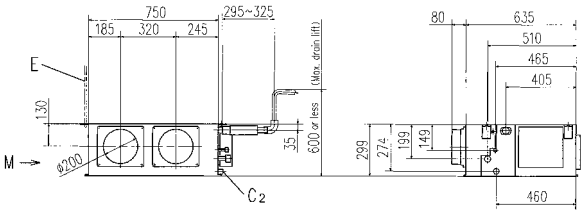
Model FDUM50V

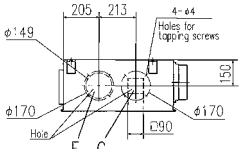


Symbol	Content	
A	Gas piping	ø12.7 (1/2") (Flare)
B	Liquid piping	ø6.35 (1/4") (Flare)
C1	Drain piping	VP20 (I.D. 20, O.D. 26) Note (2)
C2	Drain piping (Gravity drainage)	VP20 (I.D. 20, O.D. 26) Note (2)
D	Hole for wiring	
E	Suspension bolts	(M10)
F	Outside air opening for ducting	(ø150) (Knock out)
G	Air outlet opening for ducting	(ø125) (Knock out)



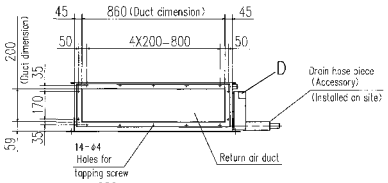




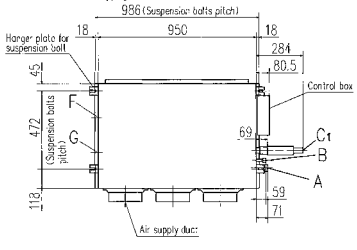


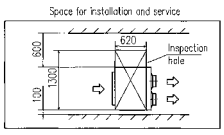
Notes (1) The model name label is attached on the lid of the control box.
(2) Prepare the connecting socket (VP20) on site.

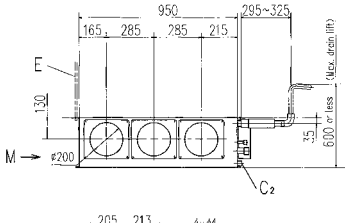
Models FDUM60V

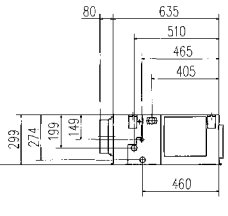


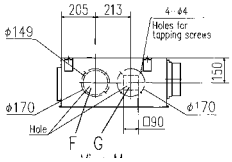
Symbol	Content		
	Model	FDUM60V	FDUM71V
A	Gas piping	ø12.7 (1/2") (Flare)	ø15.88 (5/8") (Flare)
B	Liquid piping	ø6.35 (1/4") (Flare)	ø9.52 (3/8") (Flare)
C1	Drain piping	VP20 (I.D. 20, O.D. 26) Note (2)	
C2	Drain piping (Gravity drainage)	VP20 (I.D. 20, O.D. 26) Note (2)	
D	Hole for wiring		
E	Suspension bolts	(M10)	
F	Outside air opening for ducting	(ø150) (Knock out)	
G	Air outlet opening for ducting	(ø125) (Knock out)	











Notes (1) The model name label is attached on the lid of the control box.
(2) Prepare the connecting socket (VP20) on site.

Indoor Unit

	Model		FDUM50VHX-S	FDUM60VHX-S
operational data	Rated Capacity Cool/Heat	kW	5.0/5.4	5.6/6.7
	Power Input Cool/Heat	kW/h	1.52/1.41	1.86/1.96
	EER/COP Cool/Heat		3.29/3.83	3.01/3.42
	Current Cool/Heat (MAX)	Amp	5 (14)	
	Sound Pressure Level Hi/Lo Fan	dB(A)	34/28	
	Airflow Cool Hi/Lo Fan	l/s	233/183	300/233
	Static Pressure	Pa	standard 50 MAX 85	
indoor	Dimensions (hxwxd)	mm	299x750x635	299x950x635
	Dimensions (hxw) Return Air	mm	200x660	200x860
	Dimensions Supply Air Spiggot	mm ø	2 x 200	3 x 200
	Weight	kg	34	40
	Remote		Wired RC-E3, RCH-E3 Wireless RCN-KIT3-E	
outdoor	Power Source		1 Phase 220-240V 50Hz	
	Dimensions (hxwxd)	mm	640x800(71)x290	
	Weight	kg	43	
	Sound Pressure Level	dB(A)	48	
	Sound Power Level (AS/NZS1217.4)	dB(A)	62	
	Compressor		Scroll	
	Refrigerant R410A	kg	1.4	
	Refrigerant Piping	mm ø	6.35/12.7	

■ Ceiling Suspended

FDEN

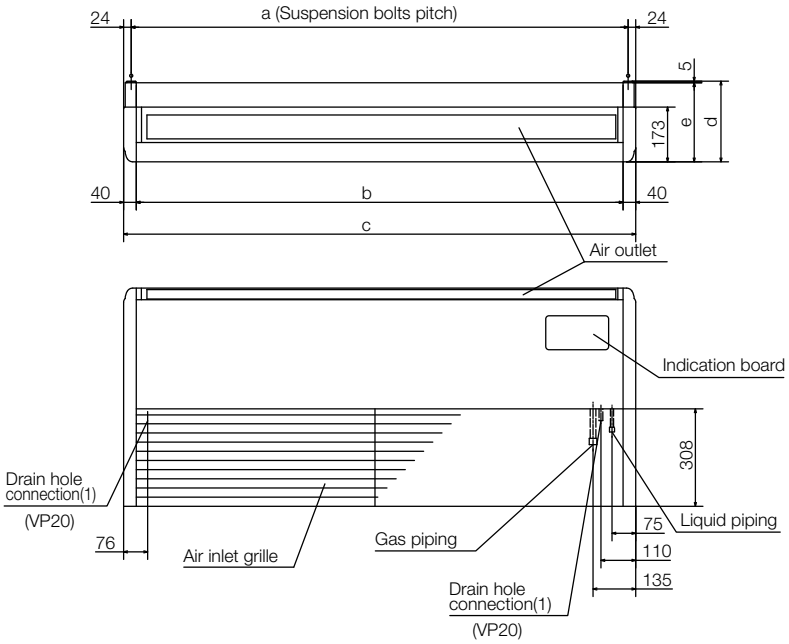
Wireless remote control

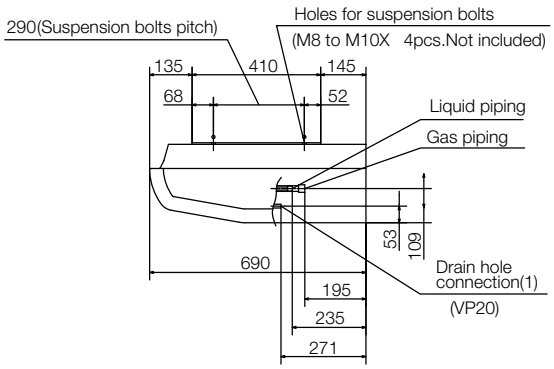
RCN-E1R
(Option)

Wired remote control

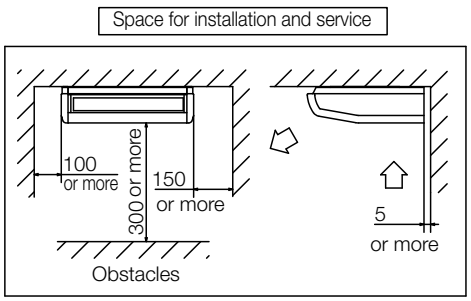
RC-E3
(Option)

■ Outline drawing (Unit:mm)





Note(1) The slope of drain piping inside the unit is able to take incline of 10mm.



■ Dimension Table

model	a	b	c	d	e
FDENVA151HEN1R	1022	990	1070	215	210
FDENVA251HEN1R	1272	1240	1320	215	210
FDEN100VNV	1572	1540	1620	255	250

Installation

Refrigeration piping can be set in three directions and the drain pipe arranged in two directions making installation easier.
The unit is serviceable from the bottom.

Compact design

The FDE height starts at just 210mm and weighs just 30kg's allowing for quick and easy installation. The unit is compact and fits neatly on the ceiling. The modern design with rounded corners lends style to the room.

	Model		FDENVA251HEN1R	FDEN100VNV
operational data	Rated Capacity Cool/Heat	kW	5.60/6.70	10.0/11.2
	Power Input Cool/Heat	kW/h	1.74/1.87	2.85/2.97
	EER/COP Cool/Heat		3.22/3.58	3.51/3.77
	Current Cool/Heat (MAX)	Amp	5 (14)	5 (24)
	Sound Pressure Level Hi/Lo Fan	dB(A)	41/38	44/39
	Airflow Cool Hi/Lo Fan	l/s	300/200	433/350
indoor	Dimensions (hxwxd)	mm	210x1320x690	250x1620x690
	Weight	kg	36	46
	Remote		Wired RC-E1 Wireless RC-E1R	Wired RC-E3, RCH-E3 Wireless RC-EN1R
outdoor	Power Source		1 Phase 220-240V 50Hz	
	Dimensions (hxwxd)	mm	750x880(88)x340	845x970x370
	Weight	kg	60	74
	Sound Pressure Level	dB(A)	48	49
	Sound Power Level (AS/NZS1217.4)	dB(A)	62	63
	Compressor		Scroll	Rotary
	Refrigerant R410A	kg	1.55	3.8
	Refrigerant Piping	mm ø	6.35/15.88	9.52/15.88

OUTDOOR UNIT (4.0-14.0kW)

SRC40ZHX-S
SRC50ZHX-S
SRC60ZHX-S

FDC71VN

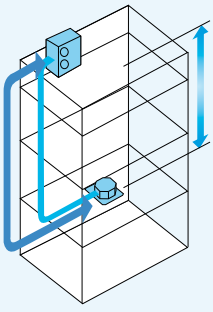
FDC100VN
FDC125VN
FDC140VN

Installation workability

Enhanced installation workability thanks to the extended pipe length – one of the longest levels in the industry and pre-charged refrigerant.

Point 1 Piping length – 50m

Piping length can be extended up to 50m for single type, which allows wider design flexibility.



Height difference (Outdoor>indoor)

4.0~6.0kW ⇒ **20m**
7.1~14.0kW ⇒ **30m**

Piping length

4.0~6.0kW : **30m**
7.1~14.0kW : **50m**

Point 2 Refrigerant pre-charged piping length extending to 30m

Refrigerant pre-charged piping length extends up to 30m. (4.0~6.0kW: up to15m)
This eliminates the need to add refrigerant on site, which sets it free from trouble of excessive or insufficient charging of refrigerant, and allows carrying out the installation smoothly.

Control Systems [Individual control]

Remote Control line up

	indoor unit	remote control
wired	all models	RC-E3
		RCH-E3

	indoor unit	remote control
wireless	FDT	RCN-T-36W-E
	FDTC	RCN-TC-24W-ER
	FDUM, FDU	RCN-KIT3-E
	FDEN	RCN-E1R

Wired remote control with weekly timer (option)

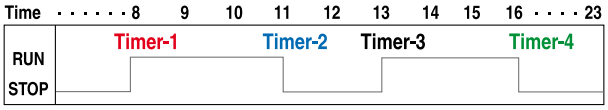
RC-E3

The RC-E3 controller enables extensive access to service and maintenance technical data combined with easy to use functions and a clear LCD display.

Weekly timer function as standard

RC-E3 provides (as a standard feature) a weekly timer, which allows one-week operation schedules to be registered. A user can specify up to four times a day to start/stop the air conditioner. (Temperature setting is also possible with the timer).

Timer operation

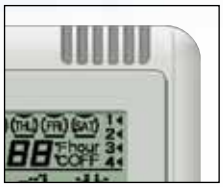


Run hour meters to facilitate maintenance checking

RC-E3 stores operation data when an anomaly occurs and indicates the error on the LCD. It also displays cumulative operation hours of the air conditioner and compressor since commissioning.

Room temperature controlled by the remote control sensor

The temperature sensor is housed in the top section of the remote control unit. This arrangement has improved the sensitivity of the remote control unit's sensor, which permits more finely controlled air conditioning.



Changeable set temperature ranges

RC-E3 allows the upper and lower limits of a set temperature range to be specified separately.
By adjusting a set temperature range, you can ensure energy saving air conditioning by avoiding excessive cooling or heating.

	Changeable range
Upper limit	20~30°C(effective for heating operation)
Lower limit	18~26°C(effective for non-heating operation)

Simple remote control (option)

RCH-E3 (wired)

NEW

Considering specialized usage in hotel rooms, control buttons are limited only to minimum required functions such as ON/OFF, mode, temperature setting and fan speed. It is really simple and easy to use.

Up to 16 units

It can control up to 16 units individually by pressing the AIR CON No. button.

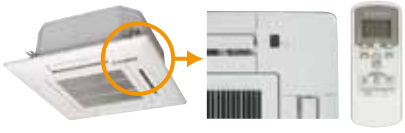
AUTO restart

This function allows starting the air conditioner automatically when power supply is restored after power failure or by turning on the power switch.

Wireless remote control (option)

For wireless control simply insert the infrared receiver kit on a corner of the panel.

RCN-T-36W-E, RCN-TC-24W-ER



RCN-KIT3-E

RCN-E1R

Thermistor (option)

SC-THB-E3

In case the sensor in the indoor units or the remote control sensor can not sense the room temperature correctly, or individual remote control in each room is not required but only a censor is required (as when center control system is in place), install SC-THB-E3 at a proper place in the room.

WIRED Control (RC-E3)

The RC-E3 control allows access to service and maintenance data and easy to use comfort functions.

Ventilation display
Displayed during ventilation operation

Central control display
Displayed when the air conditioning system is controlled by centralized remote control.

Timer operation display
Displays the timer operation setting.

Temperature setting buttons
These buttons are used to set the temperature of the room.

Timer button
This button is used to set the timer mode.

Timer setting buttons
These buttons are used to set the timer mode and the time.

GRILL button
This button has no function.
When this button is pressed,
INVALID OPER (Invalid Operation)
is displayed,but it does not mean a failure.

AIR CON No. button
Display the indoor unit number connected to this remote control.

CHECK button
This button is used at servicing.

TEST button
This button is used during test operation.

Weekly timer display
Displays the settings of the weekly timer.

Operation setting display area
Displays setting temperature, airflow volume, operation mode and operation message.

Operation/check indicator light
During operation: Lit in green
In case of error: Flashing in red

Operation/stop button
This button is used to operate and stop the air conditioning system.
Press the button once to operate the system and press it once again to stop the system.

MODE button
This button is used to change the operation mode.

FAN SPEED button
This button is used to set the airflow volume.

VENT button
This button is used to operate external ventilator.

LOUVER button
This button is used to operate/stop the swing louver.

SET button
•This button is used to fix the setting.
•This button is used to set the silent mode.

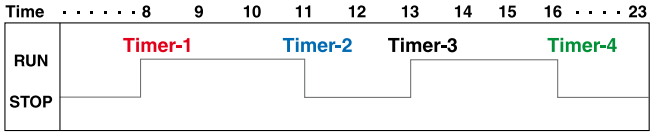
RESET button
•Press this button while making settings to go back to the previous operation.
•This button is also used to reset the “FILTER CLEANING” display.
(Press it after cleaning the air filter)

Improved Functionality

Weekly timer function as standard

RC-E3 provides a 7day 24hr timer which allows programming of weekly operating schedules to be registered. The user can specify up to four times a day to start / stop the air conditioner. Temperature setting is also possible with the timer.

Timer operation



Run hour meters to facilitate maintenance checking

RC-E3 stores operation when an anomaly occurs and indicates the error on the LCD. It also displays cumulative hours of the air conditioner and compressor since commissioning.

Room temperature controlled by the remote control sensor

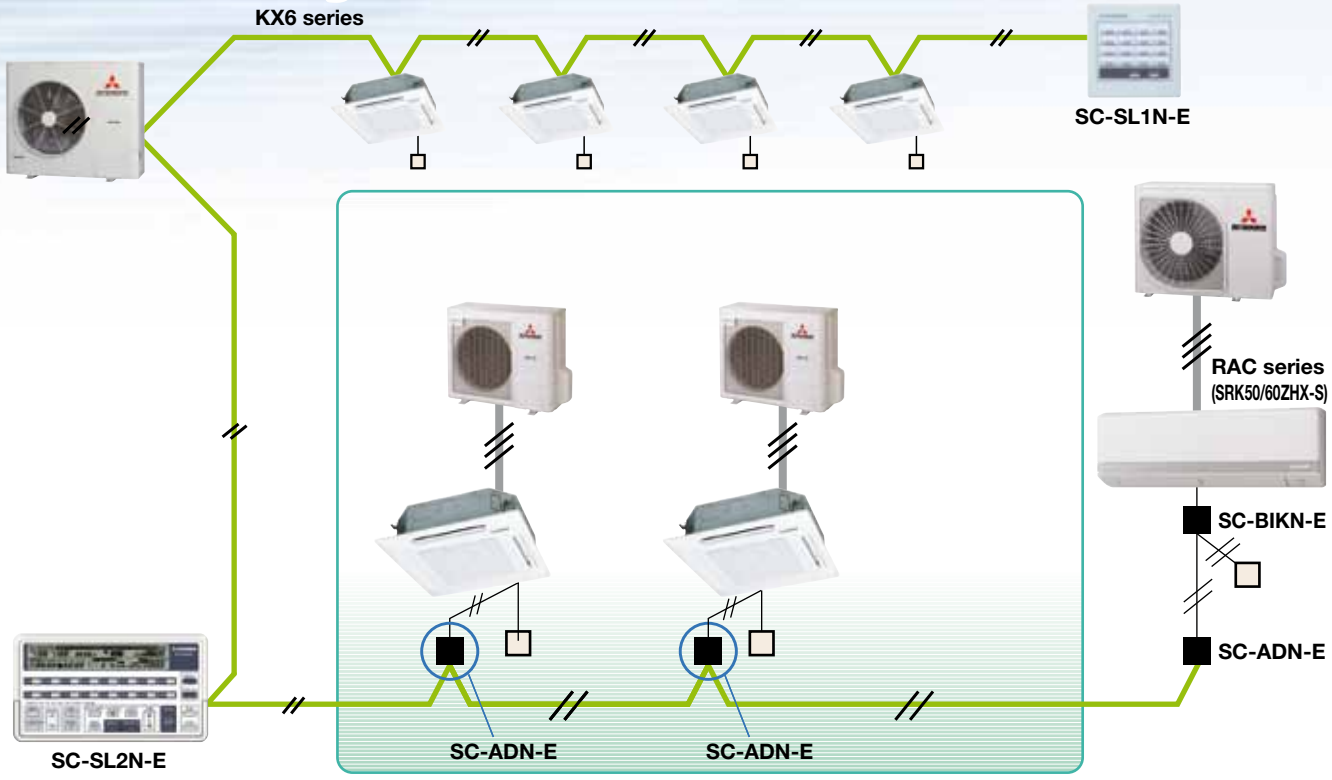
The temperature sensor is located in the top section of the remote control unit. This has improved the sensitivity of the remote controls heat sensor and permits more finely controlled air conditioning.

Changeable set temperature range

The RC-E3 allows for the upper and lower limits of a set temperature range to be specified separately. By adjusting the set temperature range you can ensure energy saving air conditioning by avoiding excessive heating or cooling.

Changeable range	
Upper limit	20~30°C (effective for heating operation)
Lower limit	18~26°C (effective for non-heating operation)

■ Control System SUPERLINK-II

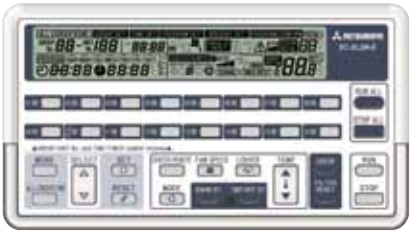


Central Control

SC-SL1N-E

Start/stop control of up to 16 indoor units is possible either individually or collectively. With simple operations, you can effect centralized control.

SC-SL2N-E



Centralized control of up to 64 indoor units. It can allow connection with a weekly timer without using any interface.

SC-SL3N-AE/BE

Easy operation realized with a large color LCD and touch panel. Up to 128 indoor units can be controlled, when three SUPERLINK-II systems are connected.

PC windows central control

SC-WGWN-A/B*

(SC-WGWN-B is with electric power calculation function)

Up to 96 groups (64 indoor unit x 2 SUPERLINK-II systems) are controlled through an internet browser.

BMS interface unit

SC-BGWN-A*

(BACnet gateway)

Up to 96 groups (64 indoor unit x 2 SUPERLINK-II systems) are controlled centrally from a BMS.

SC-LGWN-A*

(LonWorks gateway)

Up to 96 indoor units (48 indoor unit x 2) are linked as an open network. Centrally controlled through LonWorks.

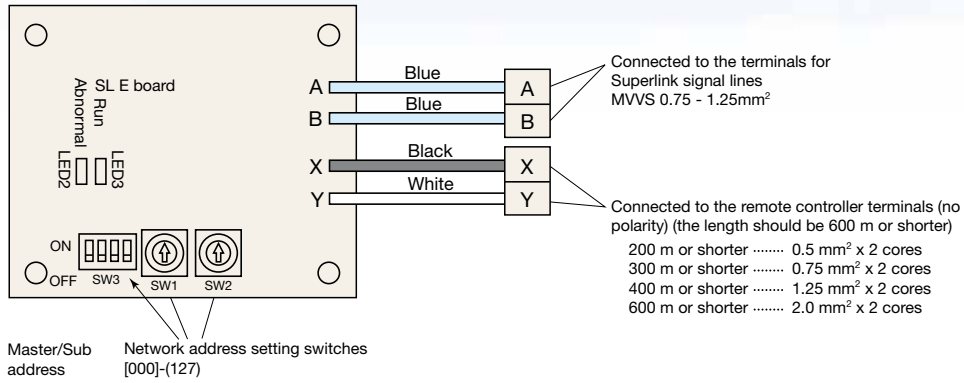
*Additional engineering service cost etc. is required.

SUPERLINK E BOARD (SC-ADN-E)

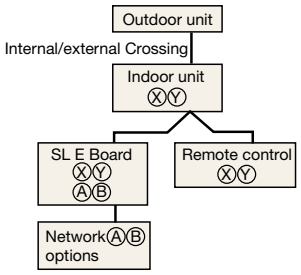
(1) Functions

(a) Transmits the settings from the network option to the indoor units.
(b) Returns the priority indoor unit data in response to a data request from the network option.
(c) Inspects the error status of connected indoor units and transmits the inspection codes to the network option.
(d) A maximum of 16 units can be controlled (if in the same operation mode).

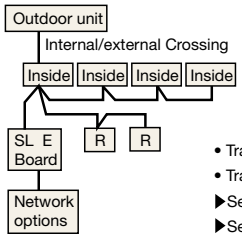
(2) Wiring connection diagram



Basic Connections



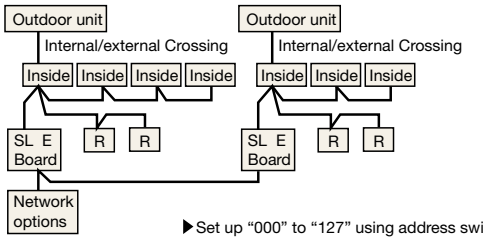
Plural Controls by Multiple Remote Controls. Mixture of Multiple Units



- Transmit the information of plural "Master" units to the network.
- Transmit the abnormalities of the "Slave" units to the network.

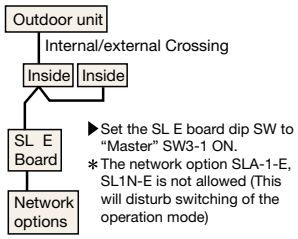
▶Setting the plural "Master/Slave" units with the dip SW of the printed circuit board.
▶Setting the "Master/Slave" remote controls with the dip SW of the remote control board.

Plural Controls by Multiple Remote Controls. Mixture of Multiple Units



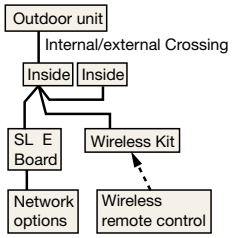
▶Set up "000" to "127" using address switch on the SL E board.

Without Remote Control

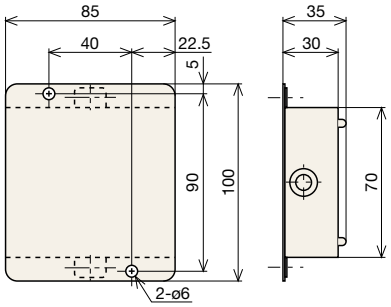


▶Set the SL E board dip SW to "Master" SW3-1 ON.
∗The network option SLA-1-E, SL1N-E is not allowed (This will disturb switching of the operation mode)

Wireless Kit



(3) Metal box dimension



Other Products

SRK SRF series - Inverter Wall-split & Floor Standing System

The DC inverter wall-split & floor standing system is designed to condition residential spaces such as bedrooms and living areas. Three different styles of wall-split indoor units from 2.0kW to 8.0kW.

SRKZG-S

SRKZE-S1

SRKZIX-S
High efficiency

NEW

SRFZIX-S
2.5, 3.5 & 5.0kW

SCM series - Inverter Multi-split System

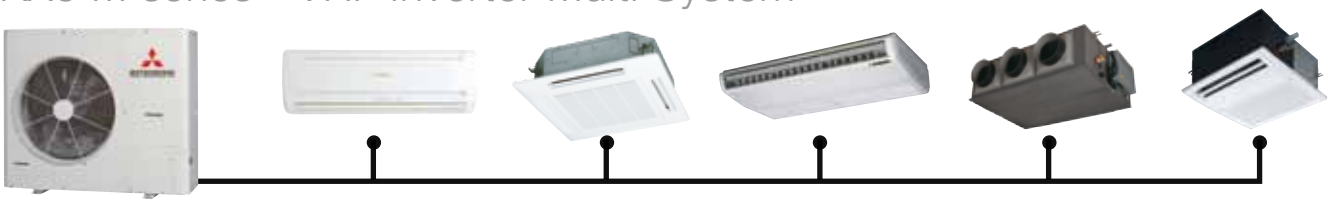
The multi-split system allows a single outdoor unit to service up to four indoor unit configurations.
Three different styles of indoor units can connect to a line up of 5 multi circuited outdoor units from 4.0kW to 13.5kW.

SRRM

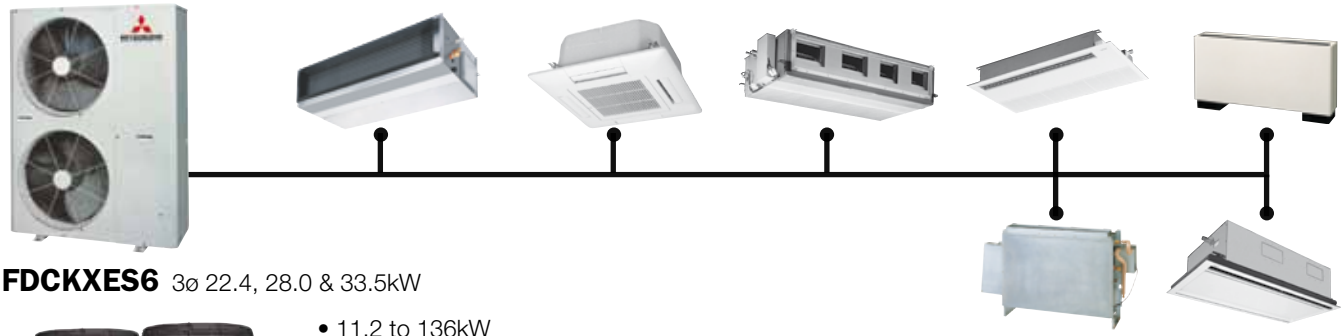
SKM

STM

KX6 M series - VRF Inverter Multi System



FDCKXEN6 1ø 11.2, 14.0 & 15.5kW (heat pump only)



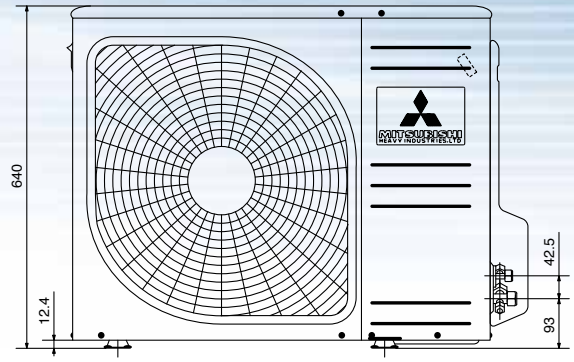
FDCKXES6 3ø 22.4, 28.0 & 33.5kW

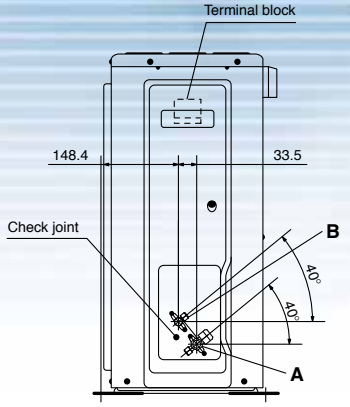
- 11.2 to 136kW
- 2 and 3 pipe VRF systems
- Industry leading EER/COP
- Reduced footprint outdoors
- 69 indoor units available
- Power cost distribution
- Esolution design tool
- 3 year warranty
- 1000m total pipe run
- All compressors are inverter control
- BAC net® LonWorks® interfaceWeb Gateway options
- New SLA3 colour touch screen controls up to 128 indoors

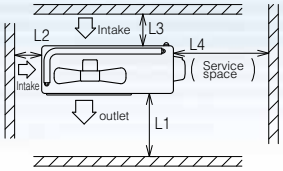
FDCKXES6 3ø 40.0 - 136.0kW

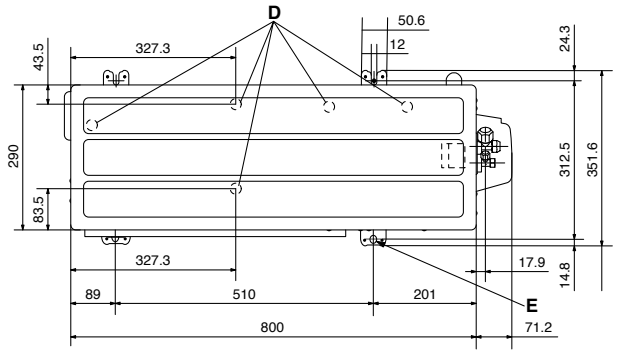
Outdoor Unit Dimensions

SRC40ZIX-S, 50ZIX-S, 60ZIX-S (unit:mm)







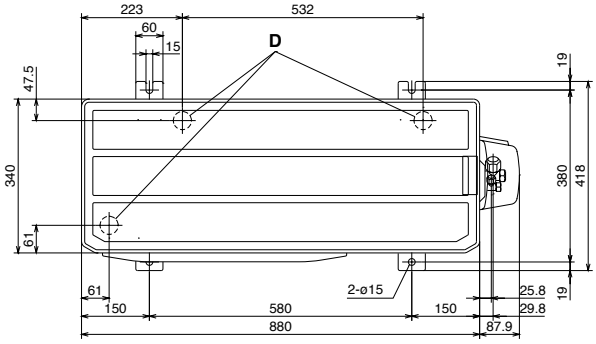


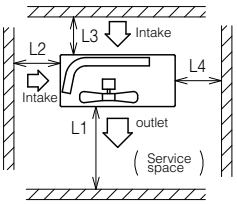
Examples of installation / Dimensions	1	2	3
L1	Open	280	280
L2	100	75	Open
L3	100	80	80
L4	250	Open	250

Mark	Item	
A	Refrigerant gas side pipe connection tap	ø12.7(flare)
B	Refrigerant liquid side pipe connection tap	ø6.35(flare)
D	Drain discharge port	Ø20.5x5places
E	Anchor bolt hole	M10x4places

Notes:
(1) It must not be surrounded by walls on the four sides.
(2) The unit must be fixed with anchor bolts.An anchor bolt must not protrude more than 15mm.
(3) Where the unit is subject to strong winds, lay it in such a direction that the blower outlet faces perpendicularly to the dominant wind direction.
(4) Leave a 1m or larger space above the unit.
(5) A wall in front of the blower outlet must not exceed the units height.
(6) The unit name plate is attached on the lower right corner of the front panel.

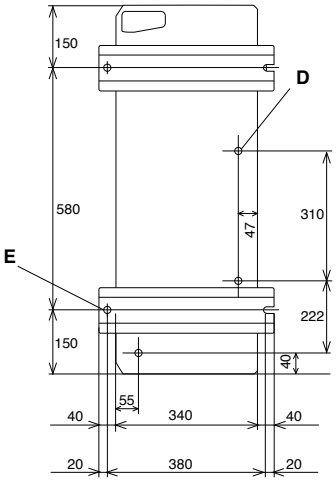
FDC71VN (unit:mm)

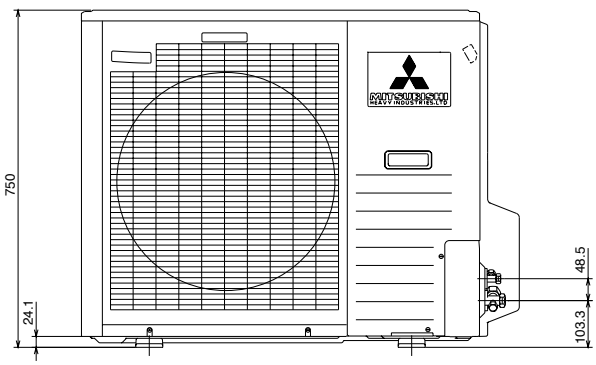


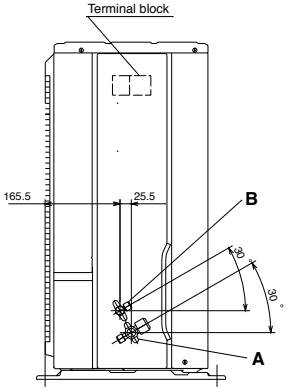


Minimum installation space

Examples of installation / Dimensions	1	2	3
L1	Open	Open	500
L2	300	250	Open
L3	100	150	100
L4	250	250	250





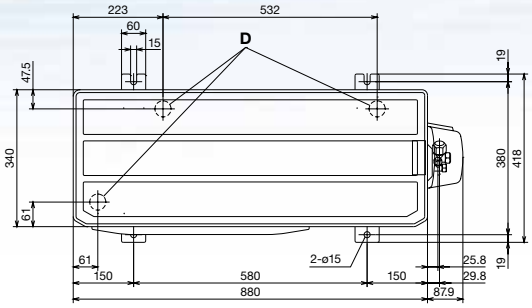


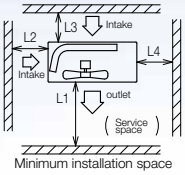
Mark	Item	
A	Refrigerant gas side pipe connection tap	ø15.88(flare)
B	Refrigerant liquid side pipe connection tap	ø9.52(flare)
C	Pipe/cable draw-out port	
D	Drain discharge port	Ø20.3x3places
E	Anchor bolt hole	M10x4places
F	Cable draw-out port	Ø30.3x3places

Notes:
(1) It must not be surrounded by walls on the four sides.
(2) The unit must be fixed with anchor bolts.An anchor bolt must not protrude more than 15mm.
(3) Where the unit is subject to strong winds, lay it in such a direction that the blower outlet faces perpendicularly to the dominant wind direction.
(4) Leave a 1m or larger space above the unit.
(5) A wall in front of the blower outlet must not exceed the units height.
(6) The unit name plate is attached on the lower right corner of the front panel.

Outdoor Unit - 7.1 to 14.0kW

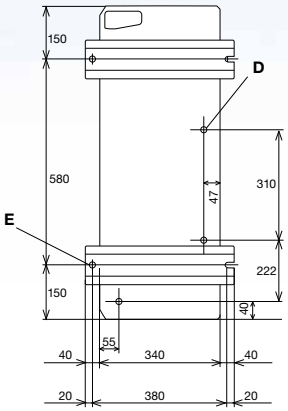
FDC71VN (unit:mm)

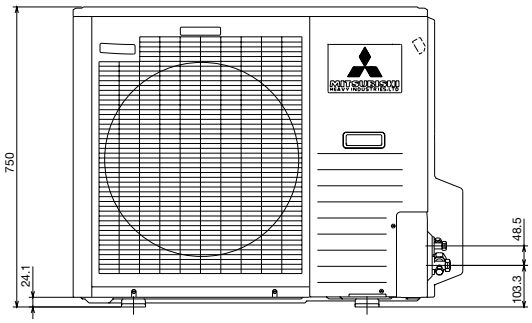


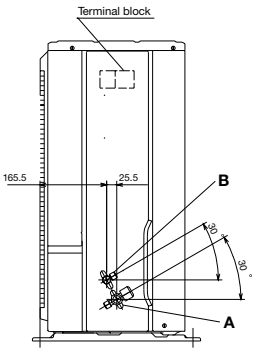


Minimum installation space

Examples of installation / Dimensions	1	2	3
L1	Open	Open	500
L2	300	250	Open
L3	100	150	100
L4	250	250	250



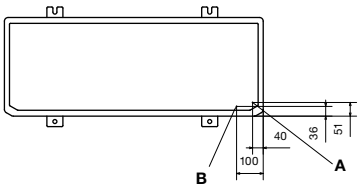




Mark	Item	
A	Refrigerant gas side pipe connection tap	ø15.88(flare)
B	Refrigerant liquid side pipe connection tap	ø9.52(flare)
C	Pipe/cable draw-out port	
D	Drain discharge port	ø20.3x3places
E	Anchor bolt hole	M10x4places
F	Cable draw-out port	ø30.3x3places

Notes:
(1) It must not be surrounded by walls on the four sides.
(2) The unit must be fixed with anchor bolts.An anchor bolt must not protrude more than 15mm.
(3) Where the unit is subject to strong winds, lay it in such a direction that the blower outlet faces perpendicularly to the dominant wind direction.
(4) Leave a 1m or larger space above the unit.
(5) A wall in front of the blower outlet must not exceed the units height.
(6) The unit name plate is attached on the lower right corner of the front panel.

FDC100VN, 125VN, 140VN



Mark	Item	
A	Refrigerant gas side pipe connection tap	ø15.88(flare)
B	Refrigerant liquid side pipe connection tap	ø9.52(flare)
C	Pipe/cable draw-out port	
D	Drain discharge port	ø20.3x3places
E	Anchor bolt hole	M10x4places
F	Cable draw-out port	ø30.3x3places

Notes:
(1) It must not be surrounded by walls on the four sides.
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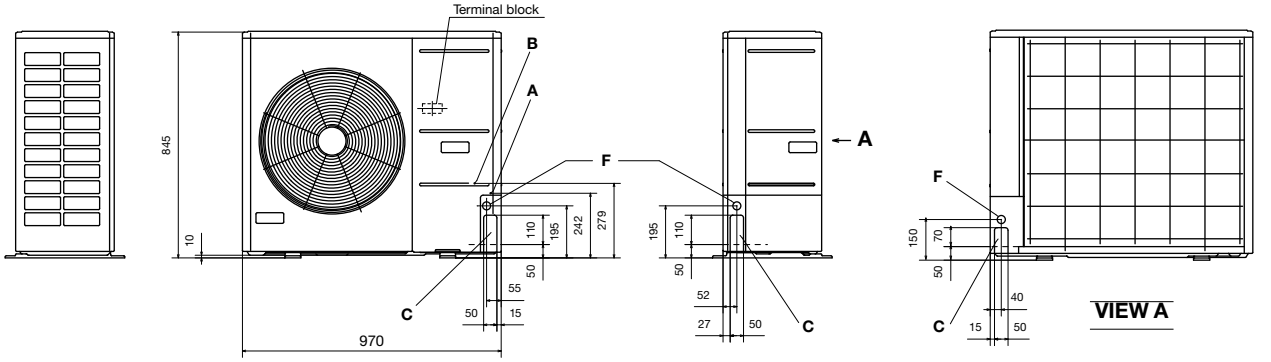

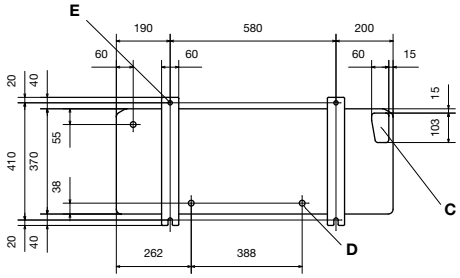

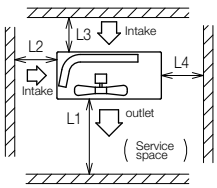

Minimum installation space

Examples of installation / Dimensions	1	2	3
L1	Open	Open	500
L2	300	5	Open
L3	150	300	150
L4	5	5	5

Before starting use

Heating performance
The heating performance values (kW) described in catalog are the values obtained by operating at an outdoor temperature of 7°C and indoor temperature of 20°C as set forth in the ISO Standards. As the heating performance decreases as the outdoor temperature drops, if the outdoor temperature is too low and the heating performance is insufficient, use other heating appliances as well.

Indication of sound values
The sound values are the values (A scale) measured in a chamber such as an anechoic chamber following the ISO Standards. In the actual installation state, the value is normally larger than the values given in the catalog due to the effect of surrounding noise and echo. Take this into consideration when installing.

Use in oil atmosphere
Avoid installing this unit in as atmosphere where oil scatters or builds up, such as in a kitchen or machine factory.
If the oil adheres to the heat exchanger, the heat exchanging performance will drop, mist may be generated, and the synthetic resin parts may deform and break.

Use in acidic or alkaline atmosphere
If this unit is used in acidic atmosphere such as hot spring areas having high level of sulfuric gases or in alkaline atmosphere including ammonia or calcium chloride, places where the exhaust of the heat exchanger is sucked in, or at coastal areas where the unit is subject to salt breezes, the outer plate or heat exchanger, etc., will corrode. Please ask a dealer or specialist when you use an air conditioner in places differing from a general atmosphere.

Use in places with high ceilings
If the ceiling is high, install a circulator to improve the heat and air flow distribution when heating.

Refrigerant leakage
The refrigerant (R410A) used for Air conditioner is non-toxic and inflammable in its original state.
However, in consideration of a state where the refrigerant leaks into the room, measures against refrigerant leaks must be taken in small rooms where the tolerable level could be exceeded. Take measures by installing ventilation devices, etc.

Use in snowy areas
Take the following measures when installing the outdoor unit in snowy areas.

- **Snow prevention**
  Install a snow-prevention hood so that the snow does not obstruct the air intake port or enter and freeze in the outdoor unit.

- **Snow piling**
  In areas with heavy snow fall, the piled snow could block the air intake port. In this case, a frame that is 50cm or higher than the estimated snow fall must be installed underneath the outdoor unit.

Automatic defrosting device
If the temperature is low, and the humidity is high, frost will stick to the heat exchanger of the outdoor unit. If use is continued, the heating performance will drop.
The "Automatic defrosting device" will function to remove this frost.
After heating for approx, three to ten minutes, it will stop, and the frost will be removed. After defrosting, hot air will be blown again.

Servicing the air-conditioner
After the air-conditioner is used for several seasons, dirt will build up in the air-conditioner causing the performance to drop. In addition to regular servicing, we recommend the maintenance contract (charged for) by a specialist.

⚠ Safety Precautions

Air-conditioner usage target
The air-conditioner described in this catalog is a dedicated cooling/heating device for human use.
Do not use it for special applications such as the storage of foodstuffs, animals or plants, precision devices or valuable art, etc.
This could cause the quality of the items to drop, etc.
Do not use this for cooling vehicles or ships. Water leakage or current leaks could occur.

Before use
Always read the "User's Manual" thoroughly before starting use.

Installation
Always commission the installation to a dealer or specialist. Improper installation will lead to water leakage, electric shocks and fires.
Make sure that the outdoor unit is stable in installation. Fix the unit to stable base.

Usage place
Do not install in places where combustible gas could leak or where there are sparks.
Installation in a place where combustible gas could be generated, flow or accumulate, or places containing carbon fibers could lead to fires.

MITSUBISHI HEAVY INDUSTRIES
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Certified ISO 9001

BIWAJIMA PLANT
Mitsubishi Heavy Industries, Ltd.
Air-conditioning & Refrigeration Systems Headquarters
Certificate number : JQA-0709

MITSUBISHI HEAVY INDUSTRIES-MAHAJAK AIR CONDITIONERS CO., LTD.
Certificate Number : 04100 1998 0813

Mitsubishi Heavy Industries-Haier (Quingdao) Air-conditioners Co.,Ltd.
Certificate Number : 5170-1996-AQ-RGG-RvA

Certified ISO 14001

BIWAJIMA PLANT
Mitsubishi Heavy Industries, Ltd.
Air-conditioning & Refrigeration Systems Headquarters
Certificate number : JQA-EM0256

MITSUBISHI HEAVY INDUSTRIES-MAHAJAK AIR CONDITIONERS CO.,LTD.
Certificate Number : 04104 1998 0813 E5

Mitsubishi Heavy Industries-Haier (Quingdao) Air-conditioners Co.,Ltd.
Certificate number : 01-1998-083

MHIAA127_PAC FD series May 2009

Because of our policy of continuous improvement, we reserve right to make changes in all specifications without notice.